

Presentation at the Third Plenary Meeting of
the Advisory Committee on Acoustic
Impacts on Marine Mammals
27-29 July 2004
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author(s) and does not reflect the view of the
Marine Mammal Commission or the Advisory
Committee on Acoustic Impacts on Marine
Mammals.*

NAVY MARINE MAMMAL R&D REQUIREMENTS

Questions to Reach the Goal

A. Marine Mammal Demographics - What, Where, When, How Many?

B. What are the Criteria and Thresholds to Measure the Effects of Naval Activities?

C. What Mitigation Methodologies should be used?

D. What are the Acoustic Source Characteristics?

Research Thrust Areas to Answer the Questions

A. Marine Mammal Location, Abundance, & Movement

B. Criteria and Thresholds, Physiology and Behavior, Effects of Sound

C. Mitigation, Monitoring, New Technology, Risk Assessment

D. Acoustic Field Characteristics

A.1 Beaked Whale Investigations

- Habitat Investigations
- Predictive Models
- Marine Mammal Data Base
- Data Analysis, Protocols, and Surveys

- Location & Habitat
- Animal Tagging
- Behavioral Ecology
- Model Hearing & Physiology

- Hearing Sensitivity
- TTS/sub-TTS
- Behavioral Ecology
- Physical Injury Models
- Cumulative Effects of Sound and/or Multiple Events
- Effects of Sound on Marine Mammal Habitat
- Workshops

- Passive Acoustic Monitoring
- Active Acoustic Monitoring
- Improved Tags
- Alternative Monitoring
- Risk Assessment Variables
- Risk Assessment Modeling
- Mitigation Effectiveness

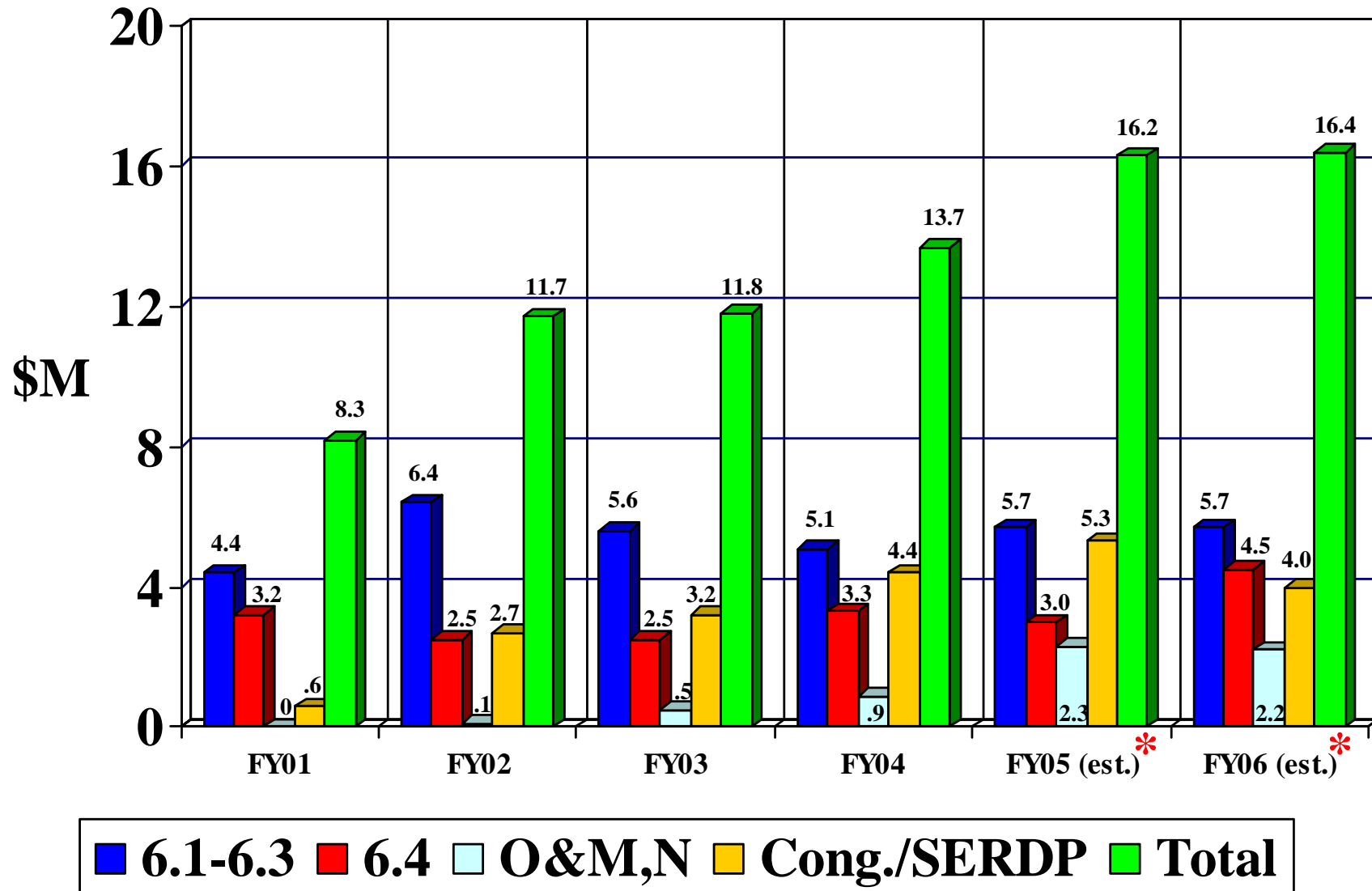
- Multiple Small Shots
- Air/Water Interface Energy Field
- Air/Water Gun Blast Energy Field
- Explosive Charges
- Explosive Charges Energy Field

Primary Research Efforts within Each Thrust Area

NAVY FUNDING SOURCES

- **ONR (6.1 – 6.3)**
 - **Basic Research – 6.1**
 - **Applied Research – 6.2**
 - **Advanced Development – 6.3**
- **CNO-N45 (6.4, O&M,N)**
 - **Demonstration and Validation – 6.4**
 - **Operations & Maintenance, Navy – O&M,N**
- **Other**
 - **Congressional adds**
 - **DoD Strategic Environmental Research & Development Program – SERDP**

TOTAL NAVY FUNDING (FY01-FY06)



* Proposed estimates for FY05 and FY06

RESEARCH SOLICITATION PROCESS - BROAD AGENCY ANNOUNCEMENTS (BAAs)

- **Long range basic/applied research and development**
 - Covers broad-based 6.1 → 6.3 research of interest to Navy
 - Current FY04 BAA 04-001, until 30 Sep 04
- **Topical basic/applied research and development announced throughout year**
- **Demonstration & Validation - 6.4 and O&M,N announced throughout the year**
- **Special Programs - MURI, DEPSCoR, DURIP, YIP, SBIR/STTR, etc.**
- **Web information at <http://www.onr.navy.mil/02/baa/>**

PROPOSAL SUBMISSION

- **Anyone can submit a proposal**
- **Process is competitive**
- **Instructions to prepare and submit proposals are on Web:**
 - http://www.onr.navy.mil/02/how_to.asp OR
 - http://www.onr.navy.mil/sci_tech/personnel/prop_submission.asp

PROPOSAL EVALUATION

- **Overall scientific or technical merit**
- **Potential contribution to Navy's mission**
- **Qualifications of principal investigator (PI)**
- **Realistic costs and availability of funds**
- **All proposals subject to federal standards of confidential review and proposer's access to review results**

PROGRAM REVIEW PROCESS

- **All ONR programs undergo external expert panel review every 1-2 years**
 - **Last Marine Mammal Program Review in May 2003**
 - **Over 100 presentations reviewed by 12 outside experts**
- **Operational Navy 6.4 and O&M,N projects directed toward specific products needed for environmental compliance**
- **All PIs strongly encouraged to publish results in peer-reviewed journals and present results at scientific conferences**